

Fig. 1

ORFV2-VEGF	M	-	-	-	-	-	-	-	-	-	K	L	L	V	G	I	L	V	A	V	C	L	H	Q	Y	L	L	N	A	D	S	N	T	K	G	-	W	S	-	-	28	
VEGF-121	M	-	-	-	-	-	-	-	-	-	N	F	L	L	S	W	V	H	W	S	-	L	-	-	A	L	L	L	-	-	Y	L	H	H	A	K	W	S	Q	A	26	
VEGF-165	M	-	-	-	-	-	-	-	-	-	N	F	L	L	S	W	V	H	W	S	-	L	-	-	A	L	L	L	-	-	Y	L	H	H	A	K	W	S	Q	A	26	
PLGF-152	M	P	V	M	R	L	F	P	C	F	L	Q	L	L	A	G	L	A	L	P	-	A	-	V	P	P	Q	Q	-	-	W	A	L	S	A	G	N	G	S	36		
VEGF-B167	M	-	-	-	-	-	-	-	-	-	S	P	L	L	-	-	-	-	-	-	-	-	-	R	R	L	L	L	-	-	A	A	L	L	Q	L	A	P	A	20		
VEGF-C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H	N	R	E	Q	A	N	L	N	S	R	T	103
VEGF-D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	D	S	R	S	A	S	H	R	S	T	R	88
ORFV2-VEGF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	
VEGF-121	A	P	M	A	E	G	G	G	Q	N	H	H	-	E	V	V	K	F	M	D	-	V	Y	Q	R	S	Y	C	H	P	I	E	T	L	V	D	I	F	Q	E	64	
VEGF-165	A	P	M	A	E	G	G	G	Q	N	H	H	-	E	V	V	K	F	M	D	-	V	Y	Q	R	S	Y	C	H	P	I	E	T	L	V	D	I	F	Q	E	64	
PLGF-152	-	-	-	-	-	-	-	-	-	-	-	-	-	E	V	V	V	F	F	Q	E	-	V	W	G	R	S	Y	C	R	A	L	E	R	L	V	D	V	S	E	64	
VEGF-B167	A	P	V	S	Q	P	D	A	P	G	H	Q	R	K	V	V	S	W	I	D	-	V	Y	T	R	A	T	Q	C	Q	P	R	E	V	V	P	L	T	V	E	59	
VEGF-C	E	E	T	I	K	F	A	A	A	H	Y	N	T	E	I	L	K	S	I	D	N	E	W	R	K	T	Q	C	S	M	P	R	E	V	C	I	D	V	G	K	E	143
VEGF-D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	
ORFV2-VEGF	T	H	P	E	L	T	S	O	R	F	N	P	P	C	V	T	L	M	R	C	G	G	C	C	N	D	E	S	L	E	C	V	P	T	E	E	V	N	V	T	87	
VEGF-121	-	Y	P	D	E	I	E	Y	I	F	K	P	S	C	V	P	L	M	R	C	G	G	C	C	N	D	E	G	L	E	C	V	P	T	E	E	S	N	I	T	103	
VEGF-165	-	Y	P	D	E	I	E	Y	I	F	K	P	S	C	V	P	L	M	R	C	G	G	C	C	N	D	E	G	L	E	C	V	P	T	E	E	S	N	I	T	103	
PLGF-152	-	Y	P	S	E	V	E	H	M	F	S	P	S	C	V	S	L	L	R	C	T	G	C	C	G	D	E	N	L	H	C	V	P	V	E	T	A	N	V	T	103	
VEGF-B167	L	M	G	-	T	V	A	K	Q	L	V	P	S	C	V	T	V	Q	R	C	G	G	C	C	P	D	D	G	L	E	C	V	P	T	G	Q	H	Q	V	R	98	
VEGF-C	-	F	G	V	A	T	N	T	F	F	K	P	P	C	V	S	V	Y	R	C	G	G	C	C	N	S	E	G	L	Q	C	M	N	T	S	T	S	Y	I	S	182	
VEGF-D	L	-	G	K	S	T	N	T	F	F	K	P	P	C	V	N	V	F	R	C	G	G	C	C	N	E	E	S	L	I	C	M	N	T	S	T	S	Y	I	S	162	
ORFV2-VEGF	M	E	L	L	-	G	A	S	G	S	-	G	S	N	-	G	M	O	R	L	S	F	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	
VEGF-121	M	Q	I	-	M	R	I	K	P	H	Q	G	Q	H	I	G	E	M	-	-	S	F	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	
VEGF-165	M	Q	I	-	M	R	I	K	P	H	Q	G	Q	H	I	G	E	M	-	-	S	F	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137		
PLGF-152	M	Q	L	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137			
VEGF-B167	M	Q	I	L	M	I	R	Y	P	S	S	Q	L	-	-	G	E	M	-	-	S	-	L	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131		
VEGF-C	K	T	L	F	E	I	T	V	P	L	S	Q	G	P	K	P	V	T	I	-	S	F	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218		
VEGF-D	K	Q	L	F	E	I	S	V	P	L	T	S	V	P	E	L	V	P	-	-	V	K	V	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	196	
ORFV2-VEGF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	
VEGF-121	R	Q	E	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	
VEGF-165	R	Q	E	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164	
PLGF-152	K	P	E	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	
VEGF-B167	A	V	K	P	D	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	
VEGF-C	R	Q	V	H	S	I	I	R	R	S	L	P	-	A	T	L	P	Q	C	Q	A	A	N	K	T	C	P	T	N	Y	M	W	N	N	H	I	C	R	C	L	257	
VEGF-D	R	H	P	Y	S	I	I	R	R	S	I	Q	I	P	E	E	D	R	C	S	H	S	K	K	L	C	P	I	D	M	L	W	D	S	N	K	C	K	C	V	236	
ORFV2-VEGF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	133	
VEGF-121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	147	
VEGF-165	C	-	K	N	T	D	S	R	C	K	A	R	Q	L	E	L	N	E	R	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	
PLGF-152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	
VEGF-B167	C	R	R	R	S	F	L	R	C	Q	G	R	G	L	E	L	N	P	D	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	
VEGF-C	A	Q	E	D	F	M	F	S	S	D	A	G	D	D	S	T	D	G	F	H	D	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295	
VEGF-D	L	Q	E	E	-	-	-	N	P	L	A	G	T	E	D	H	S	H	L	Q	E	P	A	L	C	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273

Fig. 1. Amino acid sequence of ORFV2-VEGF and its homologs VEGF-121, VEGF-165, PLGF-152, VEGF-B167, VEGF-C, and VEGF-D. The sequences are aligned by the CLUSTAL W method. The amino acid residues are numbered from 1 to 273. The sequences are shown in the following format: ORFV2-VEGF (M) - - - - - K L L V G I L V A V C L H Q Y L L N A D S N T K G - W S - - 28. The sequences are shown in the following format: VEGF-121 (M) - - - - - N F L L S W V H W S - L - - A L L L - - Y L H H A K W S Q A 26. The sequences are shown in the following format: VEGF-165 (M) - - - - - N F L L S W V H W S - L - - A L L L - - Y L H H A K W S Q A 26. The sequences are shown in the following format: PLGF-152 (M) P V M R L F P C F L Q L L A G L A L P - A - V P P Q Q - - W A L S A G N G S S 36. The sequences are shown in the following format: VEGF-B167 (M) - - - - - S P L L - - - - - R R L L L - - A A L L Q L A P A Q 20. The sequences are shown in the following format: VEGF-C - - - - - - - - - - - - - - - - - H N R E Q A N L N S R T 103. The sequences are shown in the following format: VEGF-D - - - - - - - - - - - - - - - - - M D S R S A S H R S T R 88.

Replac.

Fig. 2A

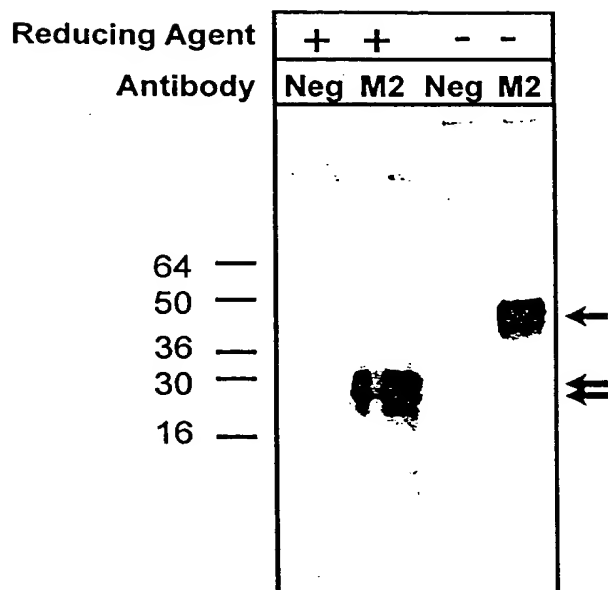


Fig. 2B

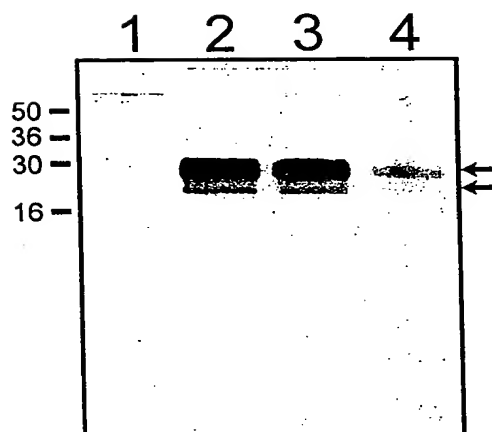


Fig. 3

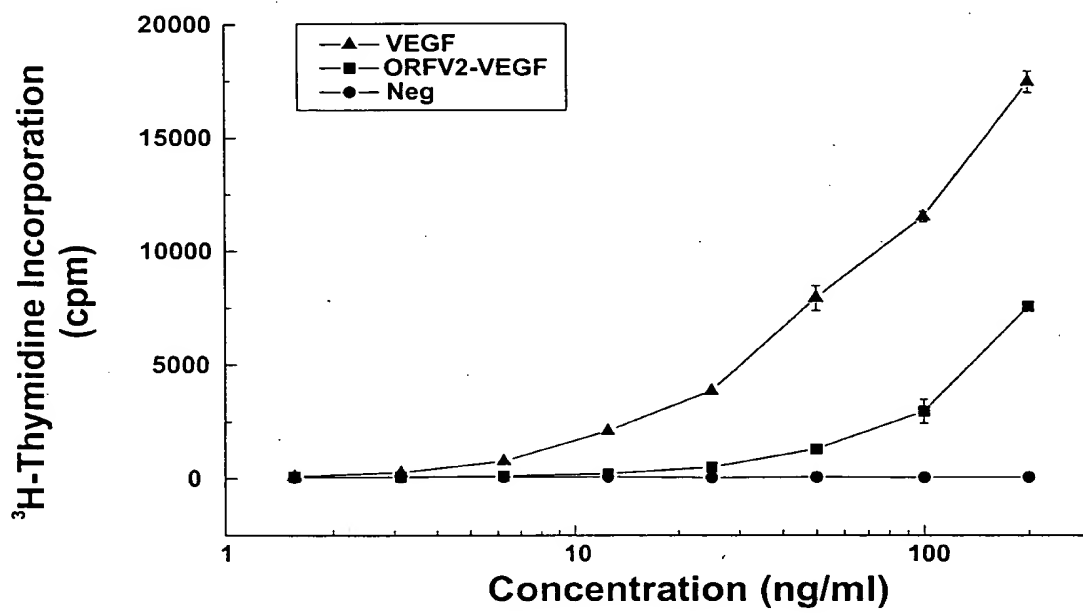


Fig. 4A

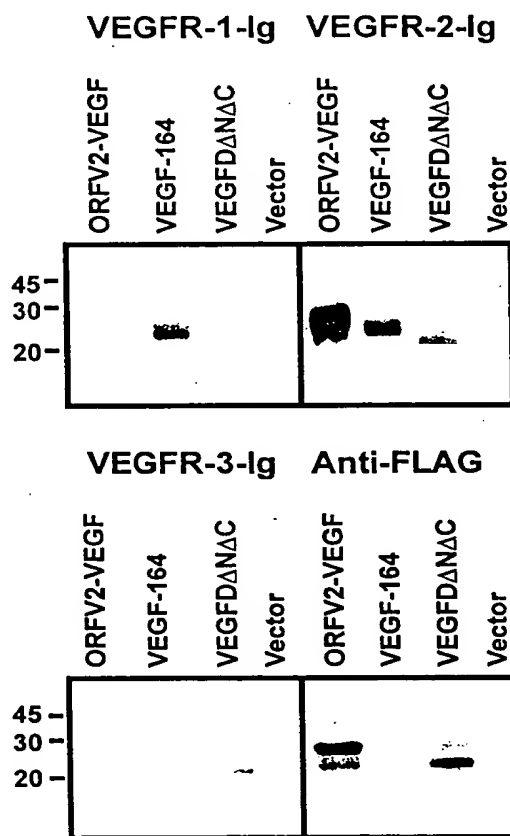


Fig. 4B

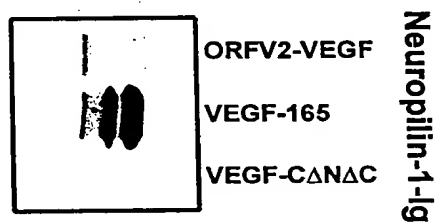


Fig. 5

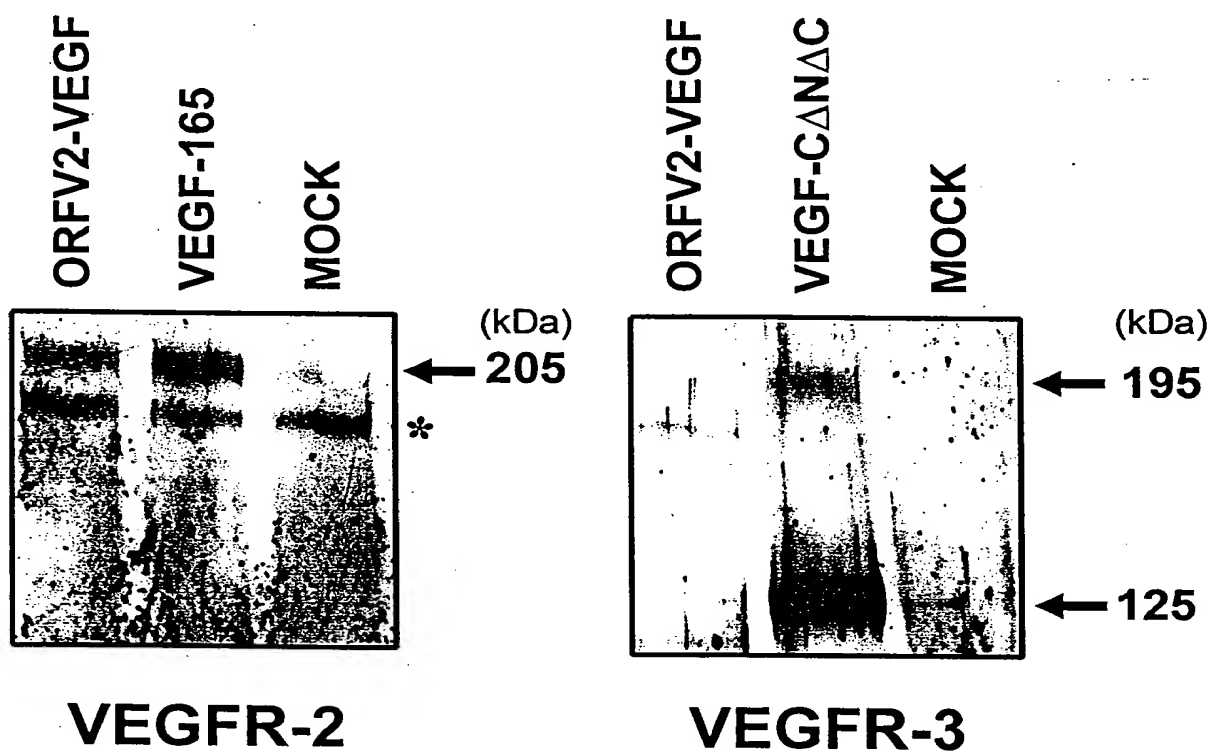


Fig. 6

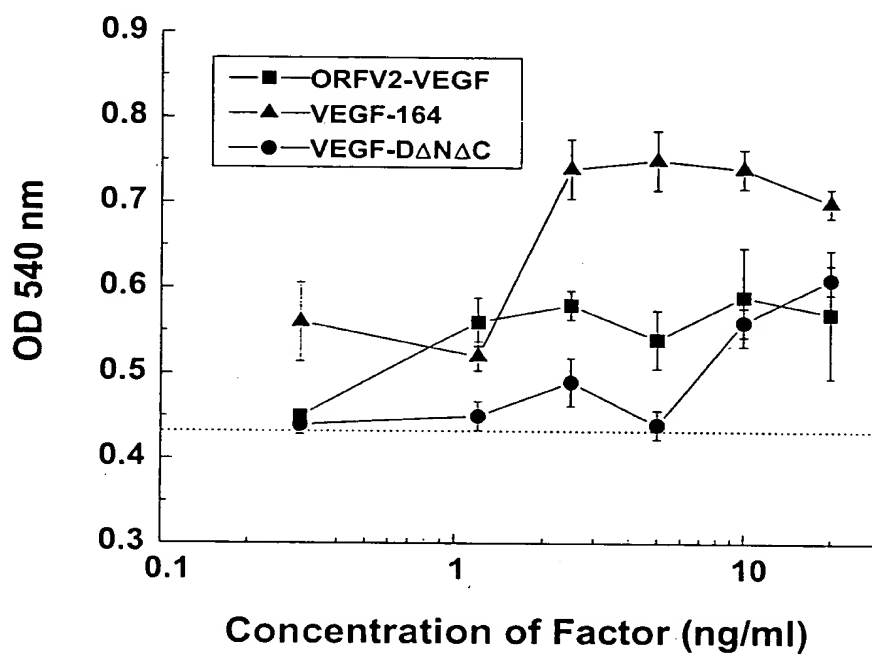


Fig. 7A

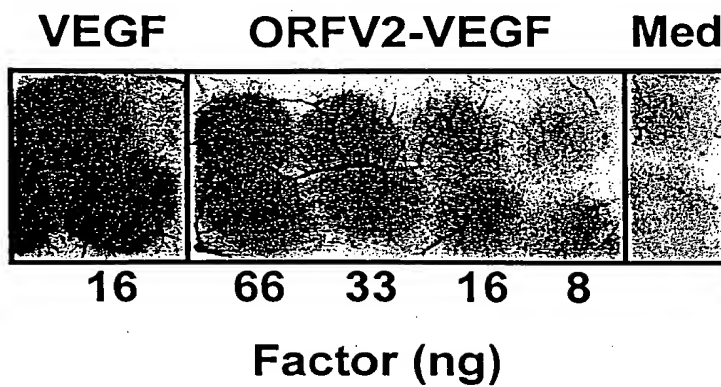


Fig. 7B

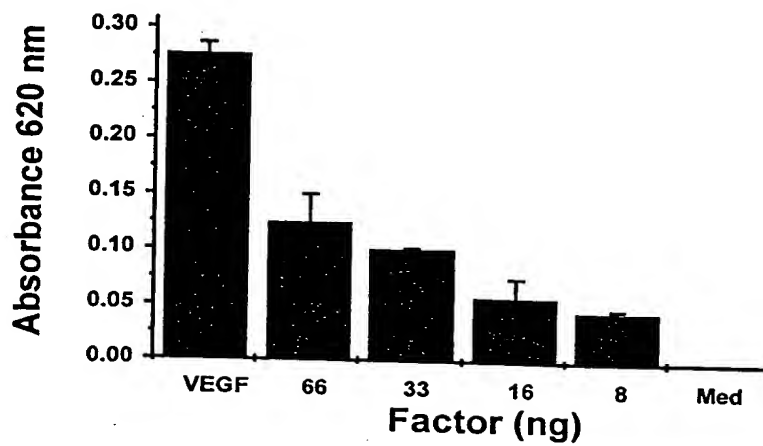


Fig. 8

ATGAAGTTGCTCGTCGGCATACTAGTAGCCGTGTGCTTGCACCAGTATCTGCTGAACGCGGACAG
CAACACGAAAGGATGGTCCGAAGTGCTGAAAGGCAGCGAGTGCAAGCCTAGGCCGATTGTTGTTTC
CTGTAAGCGAGACGCACCCAGAGCTGACTTCTCAGCGGTTCAACCCGCCGTGTGTACAGTTGATG
CGATGCGGCGGGTGCTGCAACGACGAGAGCTTGAATGCGTCCCCACGGAAGAAGTAAACGTGAC
GATGGAACTCCTGGGGGCGTCGGGCTCCGGTAGTAACGGGATGCAACGTCTGAGCTTCGTAGAGC
ATAAGAAATGCGATTGTAGACCACGATTACAACCACGCCACCGACGACCACAAGCCGCCCCAGA
AGACGCCGCTAG

Fig. 9

MKLLVGILVAVCLHQYLLNADSNTKGWSEVLKGSECKPRPIVVPVSETHPELTSQRFNPPCVTLM
RCGGCCNDESLECVPTTEEVNVTMELLGASGSGSNGMQRLSFVEHKKCDCRPRFTTTPPTTTRPPR
RRR

